

**SUMMARY OF REPORTED  
AGRICULTURE AND IRRIGATION  
WATER USE IN JACKSON COUNTY,  
ARKANSAS, 1991**



**U.S. Department of the Interior  
U.S. Geological Survey  
Open-File Report 93-432**

**Prepared in cooperation with the Arkansas  
Soil and Water Conservation Commission**

## **SUMMARY OF REPORTED AGRICULTURE AND IRRIGATION WATER USE IN JACKSON COUNTY, ARKANSAS, 1991**

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and Kenneth L. Stafford<sup>1</sup>

Water is one of Arkansas' most valuable resources. Site-specific water-use data for several categories are collected and compiled annually by the Arkansas Soil and Water Conservation Commission (ASWCC) in cooperation with the U.S. Geological Survey. Data for the agriculture (non-irrigation) and irrigation categories are reported through the Conservation District Offices in each county.

This report summarizes the 1991 water-use reporting through the Conservation District Office in Jackson County, Arkansas. The number of withdrawal registrations for Jackson County was 2,450 (2,279 ground water and 171 surface water). Water withdrawals reported during the registration process total 5.13 million gallons per day (Mgal/d) (4.70 Mgal/d ground water and 0.43 Mgal/d surface water) for agriculture and 272.18 Mgal/d (260.83 Mgal/d ground water and 11.35 Mgal/d surface water) for irrigation.

Of the total amount of water withdrawn (277.31 Mgal/d), 310,238 acre-feet per year (277.00 Mgal/d) can be accounted for by application type (table 1). The registration reports for 1991 indicate that this water was applied to 150,114 acres of land to irrigate rice, corn, soybeans, milo, cash grains, cotton, hay, and vegetables as well as for the agricultural use of animal aquaculture, catfish, goldfish, and ducks. There is a difference between total amount of water withdrawn and the reported quantity of water applied for agriculture and irrigation (0.31 Mgal/d) because some water is diverted to holding reservoirs, and because crop type or acreage delineation are incomplete on some reporting forms.

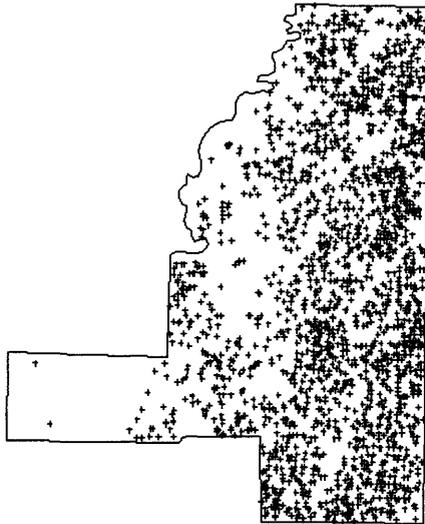
Water-use data collected in Jackson County are used in various State/Federal/Cooperative projects. The objectives of these projects are to enhance the water-resources knowledge base and to provide water managers with the best possible information to help ensure that water of suitable quality continues to be available in sufficient quantities to meet water demands. Current projects include: the Eastern Arkansas Optimization modeling project and the National Water Use Information Program.

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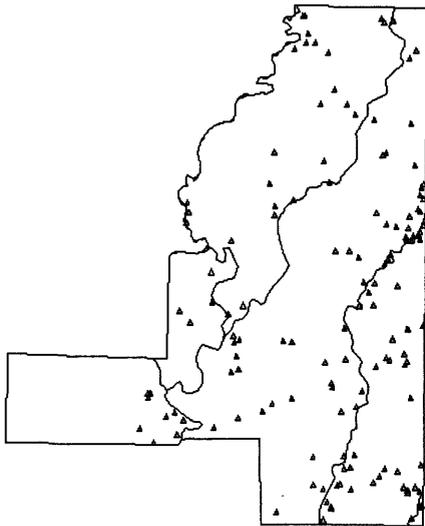
<sup>1</sup> U.S. Geological Survey

<sup>2</sup> Arkansas Soil and Water Conservation Commission

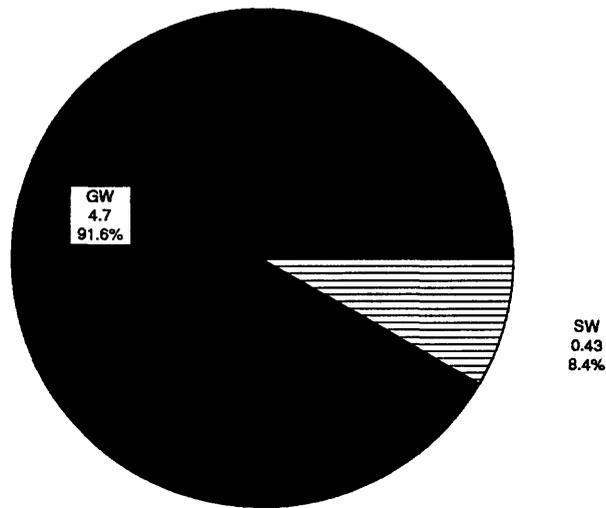
**Ground- and surface-water withdrawal locations in Jackson County, Arkansas, 1991**



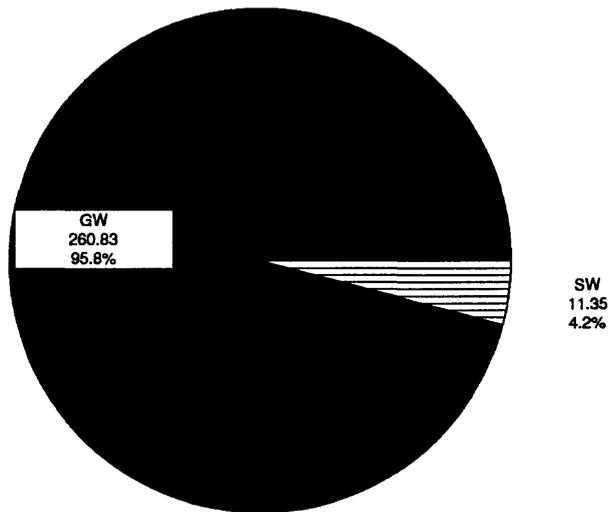
Ground-water withdrawal locations are represented by a “+”.



Surface-water withdrawal locations are represented by a “Δ”.



Percentage of ground- (GW) and surface-water (SW) withdrawals for the agriculture (non-irrigation) water-use category in Jackson County, Arkansas, 1991 (in million gallons per day)



Percentage of ground- (GW) and surface-water (SW) withdrawals for the irrigation water-use category in Jackson County, Arkansas, 1991 (in million gallons per day)



## **Water-Use Reporting**

The information contained in this report was developed through a jointly-funded program with the Arkansas Soil and Water Conservation Commission to collect water-use data in Arkansas. The role of the U.S. Geological Survey is to compile and interpret these data. Inquires regarding additional water-resources information may be directed to:

District Chief  
U.S. Geological Survey  
2301 Federal Office Building  
700 West Capitol Avenue  
Little Rock, Arkansas 72201

In addition to the jointly-funded program to acquire water-use information, the Arkansas Soil and Water Conservation Commission has the responsibilities for water-use reporting under State law.

Act 81 of 1957, as amended, requires all diverters of water from streams, lakes, or ponds to register their diversion of surface water by quantity, location, type of use, and name of user on an annual basis with the ASWCC. The ASWCC is required to furnish each registrant a Certificate of Registration. The ASWCC utilizes these registrations for the allocation of water and as a basis for determining the State's overall water usage and water needs for inclusion in the Arkansas Water Plan.

Act 1051 of 1985 requires all users of ground water, excluding domestic use and wells having a maximum potential flow of less than 50,000 gallons per day, to register their withdrawal of ground water. The quantity, location, type of use, and name of user must be registered on an annual basis with the ASWCC or their local conservation district.

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**For additional information write to:**

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U.S. Geological Survey  
2301 Federal Office Building  
700 West Capitol Avenue  
Little Rock, Arkansas 72201**

**Executive Director  
Arkansas Soil and Water  
Conservation Commission  
101 East Capitol Avenue, Suite 350  
Little Rock, Arkansas 72201**

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